

Adult Immunization Awareness

Each year thousands of adults in the U.S. die from diseases that are easily prevented by safe and effective vaccines. The Montana Immunization Program's goal in collaboration with Mountain Pacific Quality Health Foundation is to raise awareness about the importance of adult and adolescent immunization.

Although most adults realize that immunizations play an important role in keeping children healthy, many are unaware that there are vaccines available that offer a safe and cost-effective way to prevent serious illnesses and death among adolescents and adults. As many as 50,000 adults in the U.S. die each year from vaccine-preventable diseases or their complications.

By preventing illness, vaccination saves many healthcare dollars by keeping people healthy and avoiding the expensive therapies and hospitalizations needed to treat illnesses like influenza and pneumococcal disease. Immunizations help reduce absences at work, school and social events and decrease the spread of illness in the home, workplace, school and community.

In a report by the National Vaccine Program Office (NVPO), the public health burden of vaccine-preventable diseases among adults is stated as follows:

"Approximately 45,000 adults in the United States die annually of complications from influenza, pneumococcal infections, and hepatitis B- the primary vaccine-preventable diseases affecting adults. The total economic cost of treating these vaccine-preventable diseases, excluding the value of years of life lost exceeds \$10 billion each year."

Adults and adolescents in high-risk groups with chronic medical conditions often see several different specialists, none of whom takes primary responsibility for immunization and all of whom can mistakenly assume that its someone else's job. That's how a 56-year-old woman can miss a month of work after complications from influenza, when a one minute flu shot during her annual gynecological exam could have spared her from lost income and lost time from work.

You and your organization can make a difference by vaccinating and discussing the benefits of vaccination for "grown-ups". Pediatricians can talk to parents about receiving influenza, Varicella, MMR and other vaccines as the pediatrician is talking about immunizations for their child.



Adult Immunization Talking Points

- ❖ Pneumonia and influenza together are the 5th leading cause of death among older adults
- ❖ Each year pneumococcal disease is responsible for
 - 500,000 cases of pneumonia
 - 50,000 cases of bacteremia
 - 175,000 hospitalizations
- ❖ Vaccinate with PPV23 to reduce risk of invasive pneumococcal disease
- ❖ Vaccinate with PPV23 to combat the rising incidence of drug resistant *S. pneumoniae* (DRSP)
- ❖ Approximately 1.25 million people are chronically infected with HBV and can infect household members and sexual partners
- ❖ HBV is 100 times more infectious than HIV
- ❖ HBV vaccine is recognized as the first anti-cancer vaccine because it can prevent primary liver cancer caused by chronic HBV infection
- ❖ Most tetanus deaths occur in those over 60 years of age and those who are diabetic
- ❖ Almost all reported cases of tetanus occur in persons who have either never been vaccinated, or completed primary series but have not had a booster in the past 10 years
- ❖ Nearly one of every 10 people who get diphtheria will die from it
- ❖ 20% of infected people do not exhibit symptoms of mumps
- ❖ Serious complications of mumps including spontaneous abortions are more common among adults than among children
- ❖ 50% of adolescent and adult men who have mumps experience painful swelling of the testicles
- ❖ Adolescents and adults make up fewer than 5% of all chickenpox cases, yet they account for 50% of all deaths that result from this infection
- ❖ Adolescents and adults are 10 times more likely than children to require hospitalization or contract pneumonia, sepsis or encephalitis.
- ❖ Those suffering from shingles experience significant disability.
- ❖ Natural chickenpox immunity does not protect against shingles, whereas the vaccine does protect against shingles.

FLUMIST® Challenge

A guest editorial

I'll never forget my first flu vaccine shortage as a public health nurse. Suddenly and without the needed experience, my department was thrust into a sub-prioritization schedule that was not only unrewarding, it was also unapproved-- like that mattered. After all, if you only have 30 doses and need 300 you have to choose.

A hospice patient in my community was actually refused vaccine because they “would die” anyway and many elderly that should have received vaccine did not because they felt their lives were worth less than those younger.

Meanwhile within the department, still the criteria for healthcare workers to be vaccinated existed and yet to vaccinate our own employees and their families would mean someone else with much graver consequences to influenza could not be protected.

That was when we first ordered Flu Mist®. It provided us a way to vaccinate our department and multiple low risk community members who wisely wished to be protected. Since that time we have ordered FluMist® each year and it is easier and easier.

Many of our initial concerns are gone: Side effects? We've seen some runny noses. Could we administer multiple doses without gloves? Yes. Can it be used for healthcare workers and daycare providers? Are they contagious? Almost across the board there are no problems. The freezer boxes— finally gone. Allergic reactions? We screen and that risk is there no matter what we give. *I like Flumist® because I believe the only way vaccine can help is if it is administered.* LAIV allows us do just that.

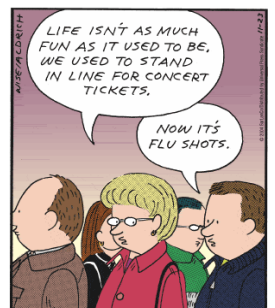
We give a little more every year by request and because it's available. As nurses, we know about inactivated vaccine so we perceive it as easier to give. Honestly, we don't feel LAIV is harder to give.

Challenge yourself this year; use LAIV. For many, many people it's obtainable when they are willing to receive vaccine. A practical hint; give your client a Kleenex; it tastes a little funny and makes your nose a little runny but it's a great time to educate about covering your cough and sneeze.

We never know what vaccine supply we'll have to work with. FluMist® could be critical in a shortage in the fight against influenza.

A parting thought is that for people who fear shots and there are many; LAIV erases that barrier. I actually had a 6 year old enter my office this week and ask if it was time for his FluMist®. That same child screamed from his Hepatitis A shot. For him FluMist® took the scream out of protecting him from flu.

Guest Editorial from Cynthia Grubb, RN Public Health Nurse, Pondera County



WIZRD ROLLOUT

The rollout of our Web-based Immunization Registry Database (WIZRD) to private providers is about 75% complete. If your office has not been trained, please contact your county health department so they can coordinate a local training.



2C1ambled HESlth

Unscramble these four jumbles,

One Letter to each square, to form your answers.

PAM MUSSELS ME (vaccine preventable diseases)

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SEA ELMS (vaccine preventable disease)

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VICE CAN

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BACTERIAL SNUBBER (physician/microbiologist/developed polio vaccine)

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Answers upside down, below

Good News and Bad News

OK, let's start with the good news. The National Immunization Survey notified the Montana Immunization Program that the immunization rates for children between the ages of 19 and 35 months for the series of 4 doses of DTaP: 3 doses of Polio: 3 doses of Hib: 1 dose of MMR: 3 doses of Hepatitis B (4:3:3:1:3) has risen to 79.6% with a confidence interval of $\pm 6.1\%$. This rate is up from the 2004 estimate of 78.2%.

The National Immunization Survey (NIS) is sponsored by the National Immunization Program. It is a random-digit-dialing telephone survey followed by a mailed survey to children's immunization providers. This survey began data collection in 1994 to monitor childhood immunization coverage.

The Montana Immunization Provider Survey, conducted by the Immunization Program staff during site visits, evaluates the immunization rates of children in the state that are being seen by private and public vaccine providers. The NIS, on the other hand, includes an evaluation of the immunization rates of children who may not be routinely seeing a health care (vaccine) provider.

Now for the bad news, the NIS went on to say that the rates for the series of 4:3:3:1:3:1, or 4 doses of DTaP: 3 doses of Polio: 3 doses of Hib: 1 dose of MMR: 3 doses of Hepatitis B with the addition of 1 dose of Varicella, dropped Montana to 65.5% with a confidence interval of $\pm 6.9\%$.

This gives Montana the dubious distinction of being fourth from the bottom of all the states!

Looking at the rates collected by staff during the site visits, it is obvious that many of you, public and private providers, are working hard on improving your varicella rates. However, there is no good way to spin this news. Montana still has parents that buy into the value of "chickenpox parties" to expose their little ones to chickenpox to "get it over with!" I am challenging you to work with the Immunization Program as we develop teaching tools for the general public, to move them to seek the varicella vaccine. Send us your ideas about what will move your population to embrace the varicella vaccine, to seek it out when they visit their doctor or clinic.

Good News bad news continued

- The results of the NIS will be published on September 15, 2006. I would anticipate Montana providers and the Immunization Program will be receiving attention in regard to our low rates. If the varicella rates in your clinic have improved since last year, please use that in your response to inquiries. If your rates have remained low, let's meet the challenge to improve.

albert bruce sabin = bacterial snubber

vaccine = vice can

measles = sea elms

measles = pam mussels me



Please remind all physicians, public or private school administrators, dentists, nurses, laboratorians, or city health officers who knows or has reason to believe that a reportable disease case exists must report to the county health department per ARM 37.114.201. A confirmed or suspected case of HIV or AIDS should be reported directly to the epidemiology section at 444-0273. There have been several incidences of reportable diseases throughout Montana that have not been reported appropriately. This becomes an issue for the community.



Friday, September 15, 2006 (SF Chronicle) **WHOOPING COUGH** **WARNING FOR ADULTS** U.S./Doctors say youths, adults need boosters to avoid infecting vulnerable infants Erin Allday, Chronicle Staff Writer

Adults who have regular contact with newborns -- especially parents, day-care workers and health-care workers -- should get the booster right away, health officials say. Many obstetricians are encouraging entire families -- including extended family members like grandparents who may spend a lot of time with a newborn, to get a booster shot at least a month before the baby is born.

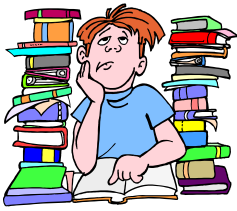
Women should receive a dose of Tdap in the immediate postpartum, if they have not already received Tdap. In March, health officials recommended that all 11- and 12-year-old children receive a whooping cough booster.

"If you see whooping cough in a baby, it's almost always from a mother or a close household contact -- a nanny, a grandma," said Peggy Weintrub, chief of pediatric infectious diseases at UCSF. "There is a push to give this to more people because it's clearly recognized that they're the ones exposing the infants."

Whooping cough made a major resurgence in the United States about five years ago, although the number of cases has been growing every year for the past decade or so. There were 25,827 cases in the United States in 2004 -- way up from the all-time low of 1,010 cases in 1976. For 2005 Montana had 586 cases of pertussis. So far for 2006 we have 16 cases.

Remember adults need immunization too!





Stop in and exercise your brain! "The Challenge" is presented for a little fun and we encourage you to discuss "The Challenge" with your peers and e-mail an answer to: thoran@mt.gov or fax your answer to the Immunization Program at 444-2920 to Tim Horan or, mail to: The Challenge, Immunization Program, Cogswell Building, P.O. Box 202951, Helena, MT 59620-2951

Winners will be acknowledged with Kudos in the next newsletter, and your names will be entered into a drawing for a T-shirt.

New Challenge

New Question: It's a beautiful Saturday morning, so you decide to take the kids over to the driving range. You're pleasantly surprised that they both are hitting the golf balls pretty well. As your son takes another ball out of the bucket, he says, "You know my friend Jimmy and his mom went to the health clinic the other day to start their Hepatitis A vaccine..." Yes, ok where are we going here, you think to yourself? "Well," he continues, "Jimmy is 15 and weighs in at 160 pounds, and they gave him a pediatric dose while his mom is 110 pounds and she got an adult dose, which I guess is twice the pediatric dose. So, what's up with that?" What do you tell him?

The Challenge - Last News Letter – Summer, Vol. 12, No. 3

Question: You and your extended family are up at the lake house for vacation. One evening, you're all sitting by the lake, enjoying a little peaceful bonding time. Remarkably, everyone is getting along and chattering away when your niece announces that while awakening from a deep sleep, last night, she became aware that her cat, Mongo, was tearing around the room as he is sometimes wont to do when chasing some flying insect. "Mongo leapt up beside me on the bed, pawing at the air then, I saw a bat fly over my head. I jumped up, opened the bedroom and outside door, and it flew away into the night. It must have come in, yesterday evening, when all the doors were open to air the cabin out. I never touched the bat, and it acted healthy. That was exciting!" As you wrap your mind around the implications of this revelation, life suddenly complicates itself. Now it's time for you to discuss a huge problem: what do you tell your niece and the rest of your family?

Answer: The Centers for Disease Control and Prevention recommends that a person who has been asleep in a room with a bat in it (and the bat is not available for rabies testing) undergo the rabies vaccine series. Bats are capable of inflicting bites to people without their knowledge due to their tiny, razor-sharp teeth, especially to people in their sleep. Such bite marks may be undetectable even to trained eyes. Also, most of the recent cases of rabies in the U.S. have been caused by bats.

Thanks and much kudos to Cynthia Grubb, Pondera County Health department, and to Boni Stout of the Flathead City/ County Health department for providing the answer to this family problem.

Where in the World Was Monty?

Monty, the Montana Immunization Bear recently made an appearance in Lewistown Montana at the Kids's Fair 2006!

If you would like to reserve Monty for a special event, contact his roommate, Beth Cottingham at 444-2969.



VARICELLA NEWS!!!!!!!

Effective September 1, 2006

New Immunization Requirements for Day Care Children

MCA 52-2-701- 741, ARM 37.95.140

Before a child under the age of five may attend a Montana day care facility, that facility must be provided with the documentation that the child has been immunized as required for the child's age:

By 19 months of age - 1 dose of Varicella Vaccine
Varicella News continued.

Effective September 8, 2006-New Reporting Requirements for Varicella Disease

MCA 50-1-202, ARM 37.114.514

Chickenpox was added to the list of reportable vaccine preventable diseases. Individual cases should be reported to local health departments who will then forward the information to the Montana DPHHS via a faxed confidential case report form. Watch for further information about this new reporting requirement in the Montana Communicable Disease Weekly Report.

If you have any questions call the Epi-section at 406-444-0273.

Montana to Implement 2 dose Varicella Vaccine on Oct. 1, 2006

To improve protection against chickenpox and for a rapid impact on school outbreaks, a second dose of varicella vaccine is recommended for children, adolescents, and adults who previously had received one dose. The first dose for children should be administered at 12-15 months of age and the second dose at 4-6 years, before the child enters kindergarten or first grade. The interval between the two doses should be at least three months.

HPV (Cervical Cancer): How the New Vaccine Works

- ❖ Subunit vaccine of human papillomavirus-like particles (dead) signals immune system to produce defense cells and high titers of antibodies to fight type-specific HPV if exposed
- ❖ Focuses defenses against:
 - HPV 16, 18: cause 70% of cervical cancer
 - HPV 6, 11: cause 90% of genital warts
- ❖ Up to 75% of adults age 15 to 49 have been infected by genital HPV
- ❖ Vaccination of U.S. population could in the future prevent 7 of 10 cases of cervical cancer, 9 of 10 cases of genital warts
- ❖ FDA has asked for more testing in boys
- ❖ Gardasil is contraindicated in persons with hypersensitivity to baker's yeast
- ❖ Gardasil is given in 3 injections over 6 months, the first shot, and 2 and 6 months later
- ❖ Infection with multiple types of HPV occurs in approximately 5–30% of infected women.

Quadrivalent HPV Vaccine Summary

- ❖ >99% seroconversion rates in 9-26 year-olds
- ❖ Antibody titers to HPV are substantially higher than after natural infection;
highest in those vaccinated at younger ages
- ❖ Antibody titers decline over time after 3rd injection, but plateau by 24 months

Rationale: Routine Vaccination Females at 11-12 Years

- ❖ Prevalent infection, targeting 'high risk' groups not possible
- ❖ Vaccination prior to sexual debut
- ❖ Implementation advantages; consistent with young adolescent health care visit
- ❖ High antibody titers after vaccination at this age
- ❖ Data through 5 years show no evidence of waning immunity; ongoing studies will monitor duration of protection

Rationale: Vaccination of Females 13-26 Years

- ❖ Females not yet sexually active can be expected to have the full benefit of vaccination
- ❖ Sexually active females may not have full benefit because they may have been infected with vaccine HPV types, however:
 - ❖ Only a small percentage are likely to have been infected with all four vaccine HPV types
 - ❖ For those already infected with ≥ 1 vaccine HPV types, vaccine would provide protection against disease caused by the other vaccine HPV types
 - ❖ Although overall vaccine effectiveness would be lower, most females will still derive some benefit from vaccination

Cervical Cancer Screening

- ❖ Cervical cancer screening – no change
 - ❖ 30% of cervical cancers caused by HPV types not prevented by the quadrivalent HPV vaccine
 - ❖ Vaccinated females could subsequently be infected with non-vaccine HPV types
 - ❖ Sexually active females could have been infected prior to vaccination
- ❖ Providers should educate women about the importance of cervical cancer screening
- ❖ Decision to vaccinate should not be based on Pap testing, HPV DNA testing or HPV serologic testing

Montana Immunization Program will not be able to add HPV vaccine to the Vaccines for Children menu until there is a federal contract in place with Merck. The VFC providers will be notified when HPV vaccine is added to the list of available vaccines to order. Guidelines for use of the VFC vaccine will be supplied at that time as well.

DTaP and Tdap Administration Errors

With the new Tdap vaccines, together with DTaP, Td and DT, there are bound to be errors in not matching the correct vaccine to the correct age. The table below shows some of the issues that have been anticipated and their solutions.

We would like to thank Judy Schmidt, RN, MSN, MA, Ed.D. for the table and explanation. Dr. Schmidt is a public health educator with the Education, Information, and Partnership Branch, ISD of the National Center for Immunization and Respiratory Disease of the CDC.

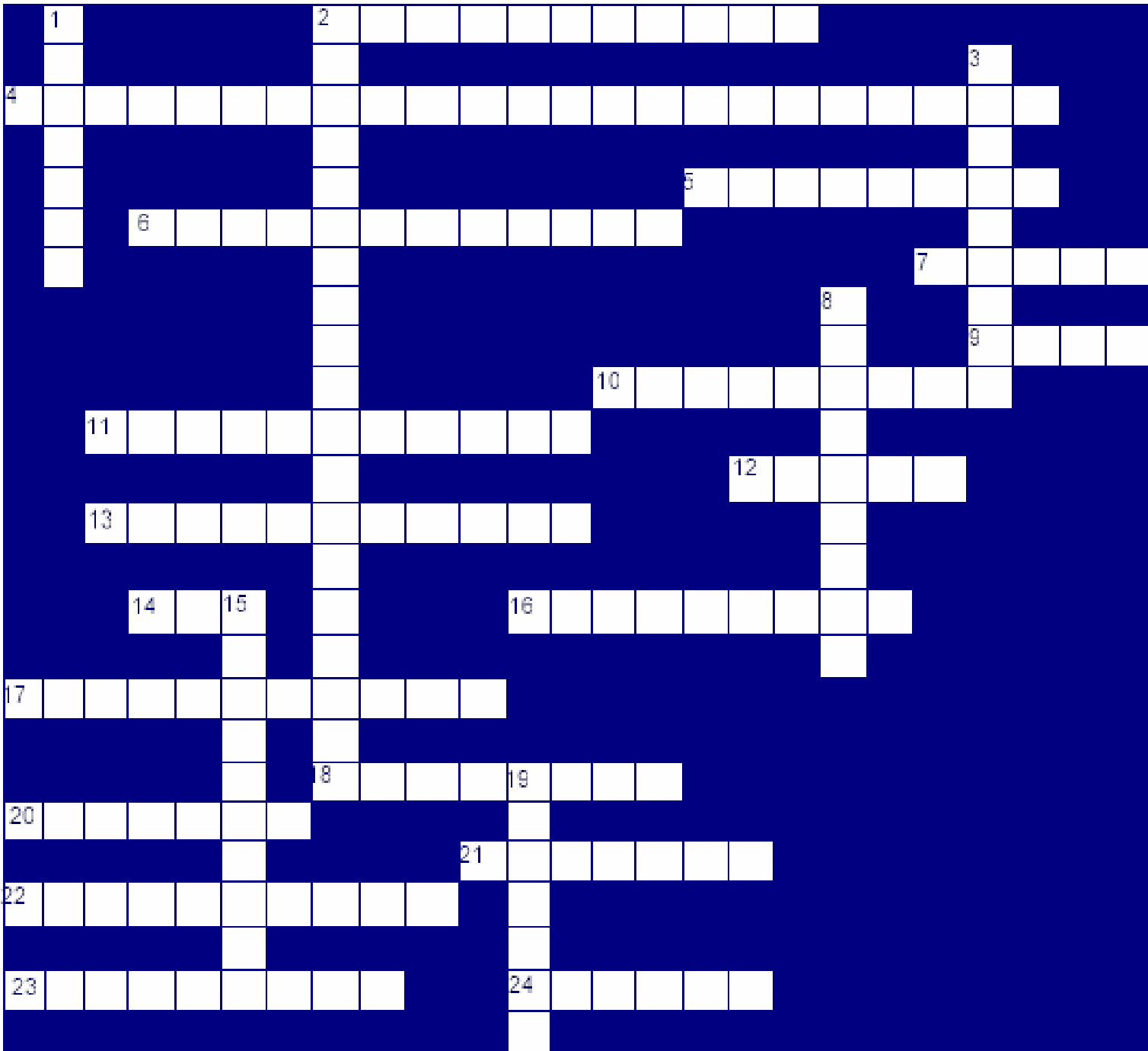
DTaP and Tdap Administration Errors	
Error	Action
DTaP given to person ≥ 7 years	Count dose as valid
Tdap given to child < 7 years as DTaP #1, 2, or 3	Do not count dose; give DTaP now
Tdap given to child < 7 years as DTaP #4 or 5	Count dose as valid

Childhood Immunizations *Clinical Crossword*[®]

Directions: You will find information to solve this puzzle at the following websites:

Immunization Action Coalition <http://www.immunize.org/>
Source for information about adult and child immunization

National Immunization Program <http://www.cdc.gov/nip/>
Information on benefits of immunization, vaccine safety, scheduling, and parent education



Childhood Immunizations Crossword was featured in Clinical Nursing Resources Newsletter,
Volume 1, Number 6, 2002.

Across

2. People who are allergic to _____ or who have had an allergic reaction to a previous dose should not take the hepatitis B vaccine.
4. The pneumococcal conjugate vaccine is given to prevent _____.
5. *Haemophilus influenzae* type b disease is caused by a _____.
6. Immunizations should be postponed for a child with a _____.
7. Common mild reactions to immunizations are _____, rash, and local tenderness.
9. _____ vaccines use a very small dose of a disease to stimulate natural immunity in a child.
10. The _____ vaccine is given to children over the age of six months with such risk factors as asthma, cardiac disease, sickle cell disease, HIV, or diabetes.
11. Women should not _____ within the month after receiving the chickenpox vaccine.
12. Common complications of _____ are deafness, meningitis, swelling of testicles or ovaries, and (rarely) death.
13. The polio vaccine currently used is _____; in other words, it is not a live vaccine.
14. Children over the age of 5 years old usually do not need the _____ vaccine.
16. The major complication of polio is _____.
17. A very common complication of childhood diseases against which we now have vaccines is mental _____.
18. Chickenpox can reappear as _____ in later life.
20. If a woman contracts _____ while pregnant, she is more likely to have a miscarriage or give birth to a child with birth defects.
21. The risk of _____ from the pneumococcal conjugate is quite small.
22. Infants should receive the first dose of this vaccine before hospital discharge.
23. Another name for whooping cough is _____.
24. The National Vaccine _____ program is a federal program to pay for the care of people who have been harmed through immunization.

Down

1. Boosters of this vaccine are recommended every 10 years.
2. Before immunizations were available, Hib disease was the leading cause of _____ before the age of five years.
3. The _____ vaccine is used to prevent chickenpox.
8. A serious, but very rare, side effect of the chickenpox vaccination is _____.
15. The hepatitis B virus is spread through the _____ and blood of an infected person.
19. Children should not get the measles, mumps, and rubella (MMR) vaccine or chickenpox if they are allergic to _____, neomycin, or a previous dose of the vaccines.

Shingles and ZOSTAVAX® Herpes zoster

Once a person has had chickenpox, the virus can live, but remain inactive in certain nerve roots within the body for many years. If it becomes active again, usually much later in life, it can cause shingles, (herpes zoster). There are more than one million new cases of shingles each year. More than half hit people 60 years of age and older. This age cohort is more likely to have the more severe and enduring pain and serious complications associated with shingles. The lingering pain from shingles is the number one reason for geriatric suicide. Complications can include pneumonia, hearing damage, vision loss and death.

The risk for shingles increases with age and can affect anyone who has ever had chickenpox. There is no way to tell who will get shingles or when it may occur. People who have problems with their immune system may have a greater risk of getting a more widespread rash and longer-lasting pain.

ZOSTAVAX is a vaccine that has recently been approved for use in adults 60 years of age or older to prevent shingles. AS with any vaccine, ZOSTAVAX may not protect everyone who receives the vaccine, but it may prevent the nerve pain associated with shingles.

ZOSTAVAX is not for treatment of shingles, it is for prevention only! It is given subcutaneous as a single dose.

Immediately after reconstitution it must be administered, **if not used within 30 minutes it must be discarded. It should be stored frozen at an average temperature of -15C or 5F or colder until it is reconstituted for use.**

Who should not receive ZOSTAVAX

- ❖ Allergic to any of its ingredients including gelatin or neomycin
- ❖ Having a weakened immune system
- ❖ Taking high doses of steroids by injection or by mouth
- ❖ Have active TB that is not being treated
- ❖ Are pregnant or may be pregnant



Pneumococcal Disease: A major cause of morbidity and mortality

Each year in the U.S. pneumococcal disease results in an estimated:

- ❖ 500,000 cases of pneumonia
- ❖ 50,000 cases of bacteremia
- ❖ 175,000 hospitalizations
- ❖ 40,000 deaths

Multidrug-resistant pneumococci are common and increasing. In a study conducted in 1998, 88% of penicillin-resistant serotypes were found to be contained in the PPV23 vaccine. **PPV23 can be given at anytime during the year not just during the “flu” season.**

Hepatitis B Update



New Administrative Rules - Outlining Follow-up Requirements For Hepatitis B Surface Antigen (HBsAg) “Positive”, Pregnant Women, and Their Contacts

ARM 37.114.540, 50-2-118, MCA - HEPATITIS TYPE B (ACUTE OR CHRONIC)

- (1) For a case of type B hepatitis:**
 - (a) Infection control precautions must be imposed until it is determined that viremia no longer exists.**
 - (b) The local health officer must identify contacts and advise them how to prevent acquisition of the disease, given the nature of their relationship to the case.**
- (2) In the event a hepatitis B surface antigen (HBsAg) is positive in a pregnant woman, the local health officer must:**
 - (a) Ensure appropriate health care providers and the birthing facility are aware of the mother’s status and the infant’s need for prophylaxis;**
 - (b) Ensure that hepatitis B immunoglobulin (HBIG) and vaccine are readily available at the birthing facility at the expected time of delivery;**
 - (c) Confirm the administration of HBIG and vaccine after delivery and submit the report from provided by the department within seven days after delivery and counsel the mother and provider regarding the need for further vaccination and testing;**
 - (d) At one to two months and again at six to seven months after delivery contact the health care provider or guardian of the infant to confirm the vaccine was given and provide an update to the department using a form provided by the department; and**
 - (e) At nine to 15 months after delivery, confirm testing of the infant for the surface antigen (HBsAg) and antibody (antiHBs) to the hepatitis B virus (HBV), counsel as appropriate, and provide an update to the department using a form provided by the department.**

**The MT Perinatal Hepatitis B Program will be sending updated, resource packets to:
Tribal, Indian and Public Health Departments,
MT Birthing Hospitals’ Key Personnel, and
MT Health Care Providers giving care to OB, Newborn and Pediatric patients.**

If you have questions or need more information, please call Marci Eckerson, Nurse Consultant for the Perinatal B Program at 406-444-1805.